

ARICIID POLYCHAETES IN AUSTRALIA.

By D. T. ANDERSON, Department of Zoology, University of Sydney.

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Synopsis.

The discovery of a dense population of the ariciid polychaete *Haploscoloplos fragilis* (Verrill) at Botany Bay is reported. Nomenclature in *Scoloplos* and *Haploscoloplos* species is discussed and the latter upheld as a genus.

Few records exist of the occurrence of ariciid polychaetes in and around the Australian littoral. Apart from the description by Kinberg (1865) of a specimen of *Labotas novae hollandiae* collected at Port Jackson by the "Eugenie Expedition", re-examined by Augener (1922) and transferred by him to the genus *Scoloplos* as *S. novae hollandiae*, the only other identifications rest on a small number of specimens collected in Western Australia and described by Augener (1914) under the names *Scoloplos armiger* O. F. Müller (a cosmopolitan species: see Eisig (1914)), *Scoloplos cylindrifera* Ehlers (previously recorded from New Zealand by Ehlers (1904)) and *Scoloplos (Naidonereis) dubius*, n. sp., the latter represented only by a single obviously young specimen of doubtful identity. Whitelegge (1889) also mentions in his fauna list of Port Jackson a species of *Scoloplos* and of *Aricia*, but makes no attempt at description or further identification.

With an immensely long continental coastline offering innumerable sandy and muddy environments suitable to ariciid life, this paucity of members of the family in Australia is surprising, and it is gratifying to report the discovery of a dense ariciid population in the sandy flats exposed by the low tide at Botany Bay on the New South Wales coast. After examining the adults and early stages of the life history, I have identified the species as conspecific with *Haploscoloplos fragilis* (Verrill) (Hartman, 1942, 1944), a species not previously recorded elsewhere than on the eastern American seaboard. The adults differ from those described by Hartman only in the absence of an interramal cirrus on the anterior abdominal parapodia, a character very variable within the family. A full description of development in the species will be published elsewhere (Anderson, 1959b).

Some confusion of nomenclature exists in the *Scoloplos* group of Ariciidae. *Scoloplos armiger* O. F. Müller, whose development is described by Anderson (1959a), was defined by Eisig (1914) as synonymous with *Scoloplos kerguelensis* (McIntosh). Okuda (1937, 1946), however, who gives an account of the development of a species *Haploscoloplos kerguelensis*, follows Fauvel (1932) in promoting *S. kerguelensis* (McIntosh) to independent specific rank and follows Monro (1933, 1935) in transferring it to the genus *Haploscoloplos*. The validity of the distinction between *armiger* and *kerguelensis* as species is upheld by a comparison of their developments, which differ in several important ways (Anderson, 1959a, b; cf. Smith, 1958, who shows that reproductive pattern can be used as a specific character among nereid polychaetes), but there is some controversy over the systematic validity of the genera *Scoloplos* and *Haploscoloplos*. Hartman (1944) favours the placing of several species previously assigned to *Scoloplos* into the genus *Haploscoloplos*, on the basis of the absence of hooks from the thoracic neuropodia. To the *H. kerguelensis* (McIntosh) of Okuda, Hartman adds, among species with known development, *Haploscoloplos bustoris* (Eisig) previously *Scoloplos bustorus* (Eisig) (development described by Horn and Bookout (1950)) and also the subject of the present notice, *Haploscoloplos fragilis* (Verrill) (previously *Scoloplos fragilis* (Verrill)). Pettibone (1954), however, considers that the *Haploscoloplos alaskensis* of Hartman (1948) shows insufficient variation from the generic characters of *Scoloplos*

to be placed other than in the genus *Scoloplos* and assigns it to the species *Scoloplos alaskensis*. In support of this, she quotes the view of Fauvel (1914) that the so-called thoracic neuropodial hooks of *Scoloplos* species are in fact the bases of worn down capillary chaetae of older specimens and suggests that descriptions of species assigned to the genus *Haploscoloplos* have been taken from young specimens in which such wearing down has not occurred. A detailed examination of numerous specimens of the *Haploscoloplos fragilis* recorded above reveals that all of them show complete absence of hooks from the thoracic neuropodia, thus confirming the original generic definition of Monro (1933), upholding Hartman's view of the validity of this genus and reinforcing her transfer (1944) of *Scoloplos fragilis* (Verrill) to the species *Haploscoloplos fragilis*.

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Addendum.—Since preparing this notice, it has come to my attention that Hartman (1957) has recently surveyed the species and distribution of the Ariciidae (Orbiniidae), recording several species new to Australia and commenting on the nomenclature of previously recorded species. The *Scoloplos armiger* of Augener (1914) she refers to *Haploscoloplos kerguelensis* and his *Scoloplos cylindrifera* to *Haploscoloplos cylindrifera*. The new species described by Hartman are *Haploscoloplos bifurcatus* from South Australia and Port Jackson and *Scoloplos (Leodamas) fimbriatus* and *Nainereis grubei australis*, both from South Australia.

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